

SUNSHINE MATH - 4

Jupiter, V

Name: _____

(This shows my own thinking.)



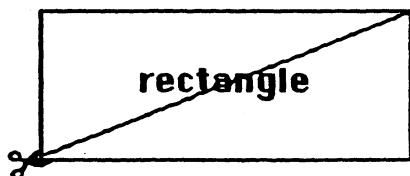
- ★★★★ 1. A normal person blinks about 25 times per minute when awake.
- How old will you be on your next birthday?
 - To the nearest million, how many times will you have blinked on your next birthday? Assume you sleep 8 hours each day.

Answers: (a) _____ (b) _____

- ★★ 2. Pablo has \$3.15 in dimes and quarters. He has more quarters than dimes. How many quarters and dimes does he have?

Answer: _____ quarters and _____ dimes

- ★★★★ 3. Use a centimeter ruler and a separate sheet of paper to draw an 8 cm. by 6 cm. rectangle. List its perimeter on the table below. Then cut out the rectangle and also cut along the diagonal as shown in the picture below. Use your two pieces to create 4 new geometric shapes. After making each shape, determine its perimeter. Below list the names of the shapes made and their perimeters.



SHAPE	PERIMETER
rectangle	_____
_____	_____
_____	_____
_____	_____
_____	_____

- ★ 4. Fill in the missing digits:

$$\begin{array}{r}
 4 \square 6 8 \\
 5 \square 6 \\
 + \square 9 4 \square \\
 \hline
 11,111
 \end{array}$$

- ★ 5. *Century* is to *decade* as *dollar* is to: (a) penny (b) nickel (c) dime (d) quarter

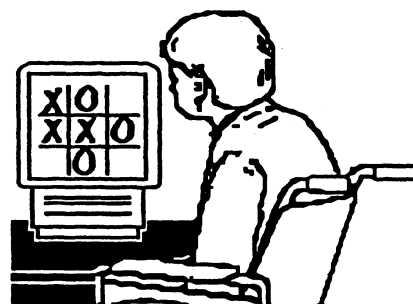
Answer: _____

- ★★ 6. Roberto ate 3 pieces of a pizza and then felt that he should pay $\frac{1}{4}$ of the cost because that's the fraction he ate. How many pieces was the pizza cut into?

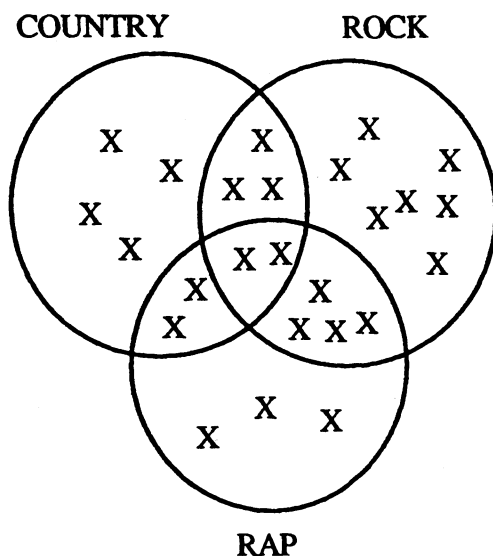
Answer: _____ pieces

- ★★★ 7. Thomas is playing tic-tac-toe with a computer. It is the computer's turn to place an "X" on the board. If the computer makes its moves at random in the open spaces, what is the chance it will win on this move?

Answer: _____



- ★★★★ 8. Answer the questions below using the Venn Diagram showing Ms. Berger's students musical preferences.



CLASS CENSUS

How many students took part in the all class census?

How many students prefer only rap?

How many students prefer only rock and country?

How many students prefer rap or country but not rock?

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Jupiter, VI

Name: _____

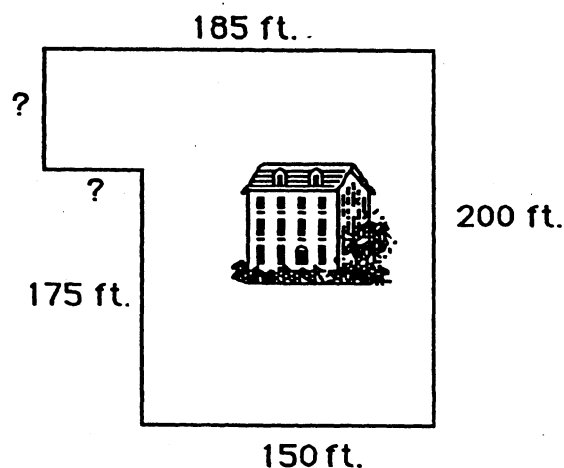
(This shows my own thinking.)

- ★★ 1. Jean went on a vacation with her parents in their family car. They left their home in Florida on Monday at 7:15 a.m. and arrived in North Carolina on Tuesday at 11:45 a.m. How long was their trip?

Answer: _____ hours and _____ minutes

- ★★★ 2. Mr. Brown wanted to put up a fence around his property. How many feet of fencing did he need? The lawn is outlined to the right, but the picture is not drawn to scale.

Answer: _____ feet



- ★★★ 3. Find the next number in the patterns below.

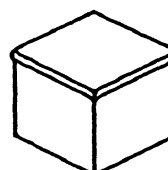
(a.) \$32.10 → \$32.30 → \$32.50 → \$32.70 → \$32.90 → \$_____

(b.) 720 → 360 → 180 → 90 → _____

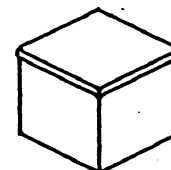
(c.) $\frac{1}{2} \rightarrow \frac{1}{4} \rightarrow \frac{1}{8} \rightarrow \frac{1}{16} \rightarrow$ _____

- ★★★★ 4. Box A has 3 red marbles and 2 yellow marbles. Box B has 2 red marbles and 1 yellow marble. If you have to pick a red marble to win a prize and you can not look in the box, which box would give you the best chance of winning the prize?

Answer: _____

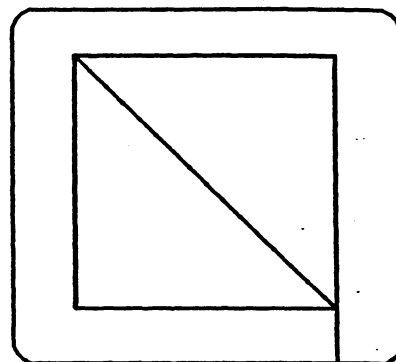


A



B

- ★★ 5. You can trace over this figure with a pencil without retracing any path, if you start in the right place. Find the two places where you can do this, and draw circles around them.



- ★ 6. If 5 is added to a number n and the answer is multiplied by 2, the result will be 24. What is the number n ?

Answer: $n =$ _____

- ★★★ 7. Estimate the answers below. Circle the best choice.

a. $3\frac{10}{11} + 2\frac{1}{101}$

Choose: 4 or 5 or 6 or 7

b. $5\frac{2}{47} - 2\frac{1}{35}$

Choose: 2 or 3 or 4 or 5

c. $6\frac{17}{19} \times 7\frac{3}{290}$

Choose: 42 or 49 or 63 or 213

- ★★★ 8. You need $\frac{1}{2}$ cup of sugar to make a three-layer cake. How much sugar would you need for a one-layer cake?

Answer: _____



- ★ 9. What is the product of the ten one-digit numbers?

Answer: _____

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Jupiter, VII

Name: _____
(This shows my own thinking.)

- ★★★★ 1. One green, one red, and one blue marble are placed in a bag. The days of the week are written on seven pieces of paper and put in another bag. You can draw from either bag for a \$1 million prize. To win, you must either draw a weekend day -- Saturday or Sunday -- or a blue marble. Which bag gives you the best chance of winning, the marble bag or the day-of-the-week bag?



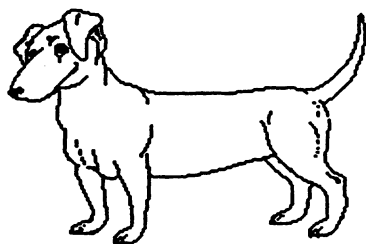
Answer: _____

- ★ 2. One disposable diaper will stay in a landfill, without decomposing, for 2000 years. If you put 4 disposable diapers into a landfill tomorrow, how long will it be before they are all decomposed?

Answer: _____ years



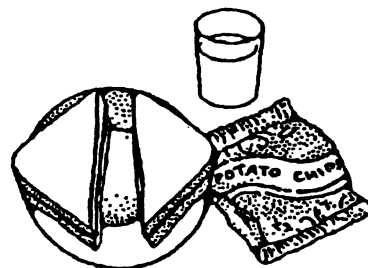
- ★★★ 3. Faye has 20 feet of fencing to make a rectangular pen for her dog. What is the largest area that she can fence in?



Answer: _____ square feet

- ★★ 4. Herman's lunch came to \$4.27, and he gave the clerk \$5.02. Why did he give the clerk two extra pennies?

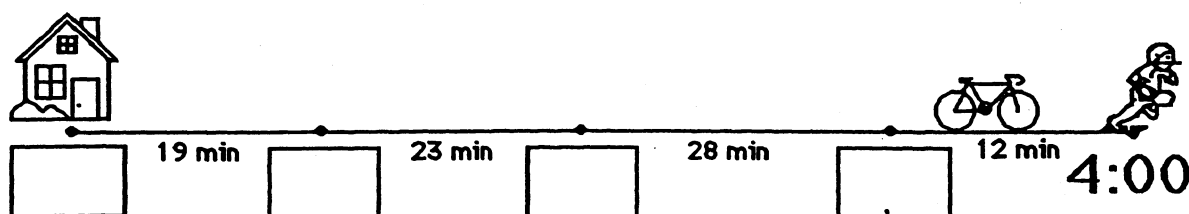
Answer: _____



- ★★★ 5. Juan's age is 3 times Derrick's age, and Tyrone is twice as old as Derrick. The sum of their ages is 30. How old is each boy?

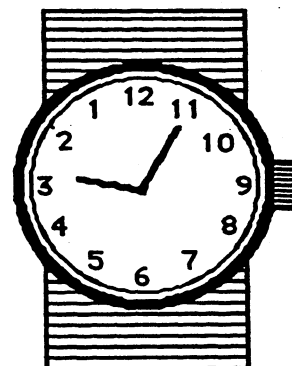
Answers: Juan is _____; Derrick is _____; Tyrone is _____

- ★★ 6. Maurice and his 3 friends ride their bikes to football practice each afternoon after school. Maurice leaves his house and goes to each friend's house, and they travel on together. He has timed each part of the trip. Practice starts at 4:00 sharp. Write in each box below when Maurice should arrive, so they won't be late for practice. Also write in the time he should leave his own house.



- ★★ 7. This watch is unusual -- it runs *counterclockwise*. What time will it be 4 hours and 45 minutes from the time shown?

For your answer, draw the hour and minute hands where they should be on this watch.



- ★★ 8. An adult has about 5 quarts of blood. When they donate a pint for a sick friend, what fraction of their blood do they give away?

Answer: _____

- ★★ 9. The human body is about 70% water, by weight.

- How many pounds do you weigh? _____ pounds
- How many pounds of you is water? _____ pounds

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Jupiter, VIII

Name: _____

(This shows my own thinking.)

- ★★ 1. What number is as much greater than 36 as it is less than 94?

Answer: _____

- ★★★ 2. Find a pair of numbers for each sum and product. Write your answers in the blanks.

	<u>Numbers</u>	<u>Sum</u>	<u>Product</u>
Example →	5 , 3	8	15
	____ , ____	10	24
	____ , ____	12	20
	____ , ____	14	48
	____ , ____	16	63
	____ , ____	18	45
	____ , ____	31	30

- ★★★ 3. Ashley, Jonathan, Sarah, Carlos, and Tanya all made the finals of the National Math Fair Competition last year. Before the final round began, each one had to shake hands with all the others. How many handshakes were there?

Answer: _____ handshakes



- ★★ 4. Karen's first five grades are: 92, 88, 99, 97, and 89. If she has an average of 94, she'll get an A on her report card. Find Karen's average. Will Karen get an A or a B?

Answer: Karen will get a(n) _____.

- ★ 5. Find the missing digits. Write the completed problem below to the right.

$$\begin{array}{r} 5 \square, 682 \\ - 43, 8\square 6 \\ \hline 6, 786 \end{array}$$

Answer:

- ★ 6. On the Fourth of July, a typical temperature in Florida during the day would be:

a. 12°C b. 120°F c. 36°C

Answer: _____

- ★★ 7. Rachel mailed out 12 party invitations and the stamps cost \$0.32 each. She paid for her stamps with a five dollar bill. How much change should she receive?

Answer: _____



- ★★★★ 8. In these addends, each letter represents a single digit. Find the numbers. Write the completed problem below, on the right hand side.

$$\begin{array}{r} \text{C E N T} \\ \text{C E N T} \\ + \text{S C E N T} \\ \hline 35128 \end{array}$$

Answer:

- ★★ 9. To change "dog years" to "people years," you multiply the dog's age by 7.

- a. How old, in people years, is a 10-year old dog? _____
- b. How old are you? _____ How old a dog is equal to you in age? _____

When I turn $2\frac{1}{2}$ I can join the army!

